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EXAMINER

LE, UYEN T

ART UNIT

PAPER NUMBER

2171

DATE MAILED: 03/19/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/813,748

Applicant(s)

ZHOU, HONGYI

Examiner

Uyen T Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) *Me*
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Specification

1. The disclosure is objected to because:
 - it contains an embedded hyperlink and/or other form of browser-executable code for example at page 1. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01
 - at many instances, discrepancies exist between the description of the reference numerals and the drawings. An example is reference numeral 16 shown in Figure 1A as "Internal DB". However, the specification refers to "local web server 16". Another example is reference numeral 20 pointing to the master server in Figure 1B. However, the specification refers to "global system 20".

Applicant is requested to review the whole specification and to make appropriate corrections.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because of many discrepancies between the reference numerals used in the drawings and their corresponding description in the specification. An example is reference numeral 20 pointing to the "master server" in Figure 1B. However, the specification refers to "a global system 20".

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4, 5, 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because:

- claim 4, lines 2-4 are not understood. Does applicant intend to mean –in which each hash table entry corresponds to a tree and the nodes of the tree correspond to characters of the inquiry matching the personal and business contact information?
- claim 5 “wherein the hash table contains pointers at the nodes directing to the personal and business contact information stored in a memory of the database” is not understood, therefore, the limitation can not be ascertained
- claim 11 “nodes from said hash table to corresponding branches of said hierarchical tree” is not understood, therefore, the limitation can not be ascertained.

The art rejection of claims 4, 5, 11 is applied as best understood in light of the rejection under 35 U.S.C. 112, second paragraph discussed above.

Claim Objections

4. Claims 2-12 are objected to because of the following informalities:

- each instance of “A” at the beginning of each claim 2-7, 9-12 should be replaced by – the--

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- claim 8, step (e) "said information" should be – said personal and business contact information—
- claim 12, last line "when the inquiry contains phonetic alphabetic letters" should be deleted because the inquiry as claimed already contains characters to be converted into corresponding phonetic spelling words.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teare et al (US 6,151,624), in view of Wlaschin (US 6,182,121).

Regarding claim 1, the claimed system of personal and business web card merely reads on the system of Teare storing name files for subsequent access (see the abstract, column 4, line 1- column 5, line 30). The claimed server is met by the Web server 60. The claimed search engine and database storing personal and business contact information is met when Teare shows crawler 24 and local files 62. The claimed plurality of users' apparatus is met by the clients connected via the Internet. Teare discloses that the information is arranged in a hierarchical tree when Teare shows the directory tree (see column 7, lines 27-31). The claimed accurate search and fuzzy search are met when Teare shows the exact and inexact matching (see column 21,

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lines 39-61). Although Teare does not specifically show that the tree is denoted with a hash table, it is well known in the art to use hashing to efficiently represent data as shown by Wlaschin (see the abstract). Therefore, it would have been obvious to one of ordinary skill in the art to denote the directory tree of Teare with a hash table in order to efficiently represent data in memory.

Regarding claim 2, Teare discloses that the server is connected to the users through ISP and LAN (see column 29, lines 15-53).

Regarding claim 3, since the directory tree is denoted with the hash table, clearly the search has to be conducted in accordance with the hash table as claimed.

Regarding claim 4, since the tree is a directory of persons, clearly the accurate search which reads on the exact search of Teare has to perform in the claimed manner (see column 8, lines 14-20, column 21, lines 39-42).

Regarding claim 5, although Teare does not specifically show the claimed pointers, it is well known in the art to use pointers to direct to other memory storages as shown by Wlaschin (see column 10, lines 36-40). Since the system of Teare stores personal and business information that might require a large storage, it would have been obvious to one of ordinary skill in the art to include the use of pointers in order to direct to information stored at various locations in memory.

Regarding claim 6, the claimed "fuzzy search is performed by dividing a stream of characters of an inquiry into certain meaningful words in accordance with predetermined rules as stored in a memory of the database" is met when Teare discloses that the system is usable for different natural languages (see the abstract) and

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inexact search is performed (see column 21, lines 39-42). Clearly the query has to be divided in the claimed manner since each language has its own set of meaningful words.

Regarding claim 7, the claimed automatic matching of the divided characters with web card names and additional information merely reads on the exact matching of the system of Teare (see column 21, lines 39-42).

Claim 8 corresponds to the method for claim 1, thus is rejected for the same reasons stated in claim 1 above.

Regarding claim 9, Teare discloses that the information is encoded in Unicode that corresponds to a standard set of characters of a native language (see column 8, lines 14-61).

Regarding claim 10, the hash table in the system of Teare and Wlaschin has to contain all entries of the Unicode characters and each entry has to correspond to a branch of said tree since the tree represents a name directory.

Regarding claim 11, although Teare does not specifically show the claimed pointer, it is well known in the art to use pointers to direct to other memory storages as shown by Wlaschin (see column 10, lines 36-40). Since the system of Teare stores personal and business information that might require a large storage, it would have been obvious to one of ordinary skill in the art to include the use of pointers in order to direct to information stored at various locations in memory.

Regarding claim 12, although Teare does not specifically show converting characters of the inquiry into corresponding phonetic spelling words, it is well known in

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the art as shown by Wlaschin to use other indexes such as phonetic and special sorting for other languages (see column 18, lines 9-15). Therefore, it would have been obvious to one of ordinary skill in the art to include the claimed feature while implementing the system of Teare in order to allow the system to use other types of indexes as taught by Wlaschin to efficiently retrieve information.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wang (US 4,468,728) teaches data structure and search method fro a database management system.

Chandra (US 6,085,242) teaches a method for managing a repository of user information using a personalized uniform locator.

Chiou et al "Recognition of Chinese business cards", IEEE 1997, pages 1028-1032.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uyen T Le whose telephone number is 703-305-4134. The examiner can normally be reached on M-F 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



Uyen Le
March 17, 2003